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EXAMINER

CHEN, TIANJIE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/604,124 | Applicant(s) POLLARD ET AL. | |
| | Examiner Tianjie Chen | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above claim(s) 29-59 and 71-88 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 15-25, 60-67 is/are rejected.
- 7) ☒ Claim(s) 12-14, 26-28 and 68-70 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Non-Final rejection***Election/Restrictions***

1. Applicant's election with traverse of Species I with claims 1-28 and 60-70 in the reply filed on 03/17/2008 is acknowledged. The traversal is on the ground(s) that "Applicant respectfully submits that the stated reason for the restriction requirement, that "In the instant case, each subcombination has separate utility such as used in a library without the particular structures existing in another subcombination as specified above" is incorrect and misapprehends the claimed invention as it pertains to Group A and Group D." This is not found persuasive because the subcombination disclosed in Group D can be used without the particular limitation of "a magazine transport device, operatively attached to the frame, for moving a magazine comprised of a frame structure that defines a space for accommodating a plurality of data cartridges and an opening through which a data cartridge can be inserted/removed into/from the space, and a partitioning structure that divides the space into a plurality of substantially parallel slots with each slot capable of accommodating a data cartridge, and when such a magazine is associated with the library, the magazine is oriented such that a data cartridge held within one of the plurality of slots is oriented such that the face of the data cartridge with the greatest surface area lies in a substantially vertical plane;" disclosed in Group A.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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2. Claims 1, 3-9, and 60-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Coffin et al (US 2002/0122271).

Claim 1, Coffin et al shows a data cartridge library including:

a frame 38;

a shelf system 16 and 16', operatively attached to the frame, for supporting at least two cartridge magazines 20 and including at least one shelf;

a drive 26 ([0025]) that is operatively attached to the frame;

a magazine transport device 16, operatively attached to the frame, for moving a magazine comprised of a frame structure that defines a space for accommodating a plurality of data cartridges and an opening through which a data cartridge can be inserted/removed into/from the space, and a partitioning structure that divides the space into a plurality of substantially parallel slots with each slot capable of accommodating a data cartridge, and when such a magazine is associated with the library, the magazine is oriented such that a data cartridge held within one of the plurality of slots is oriented such that the face of the data cartridge with the greatest surface area lies in a substantially vertical plane (Fig. 3); and

a cartridge transport device 46, operatively attached to the frame, for moving a data cartridge between a data cartridge magazine and the drive;

wherein the magazine transport device is capable of moving a magazine to a site at which at least two of the plurality of substantially parallel slots of the magazine are exposed to the cartridge transport; wherein the cartridge transport (Figs 2 and 3) comprises:

a grasper 78 (Fig. 8) for grasping a data cartridge 14 and releasing a previously grasped data cartridge; and

a grasper transport, located adjacent to the site, for horizontally displacing the grasper so that the grasper is able to insert/remove a data cartridge into/from each of the at least two of the plurality of substantially parallel slots of a magazine positioned at the site.

Claim 3, Coffin et al shows in Fig. 46 that grasper transport comprises a rack and pinion.

Claim 4, Coffin et al shows in Fig. 5 that the grasper transport comprises a pulley.

Claim 5, Coffin et al shows in Fig. 5 that the grasper transport comprises a rotary actuator (motor 68).

Claim 6, Coffin et al shows in Fig. 7 that the grasper transport comprises a linear actuator, which pulls 78.

Claim 7, Coffin et al shows that the grasper transport moves at least a portion of the grasper along a substantially horizontal and straight line (Fig. 2); and the cartridge transport comprises means for rotating the grasper about a substantially horizontal axis that is substantially perpendicular to the straight line (Fig. 7).

Claim 8, Coffin et al shows that the grasper transport moves at least a portion of the grasper along a substantially horizontal and straight line (Fig. 2); and the cartridge transport comprises means for rotating the grasper about a substantially horizontal axis that is substantially parallel to the straight line (Fig. 7).

Claim 9, Coffin et al shows that the grasper transport moves at least a portion of the grasper along a substantially horizontal and straight line (Fig. 2); and the cartridge transport comprises means for rotating the grasper about a substantially vertical axis at the corner of the trajectory (Fig. 2).

Claim 60, Coffin et al shows a data cartridge library including:

a frame;

a shelf system, operatively attached to the frame, for supporting at least two cartridge magazines and including at least one shelf;

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a drive that is operatively attached to the frame;
a magazine transport device, operatively attached to the frame, for moving a magazine; and
a cartridge transport, operatively attached to the frame, for moving a data cartridge between a data cartridge magazine and the drive;

wherein the cartridge transport comprises: a grasper for grasping a data cartridge and releasing a previously grasped data cartridge; and means for rotating the grasper about an axis.

Claim 61, Coffin et al shows that he means for rotating comprises means for rotating the grasper about a horizontal axis.

Claim 62, Coffin et al shows that the means for rotating comprises means for rotating the grasper about a vertical axis.

Claim 63, Coffin et al shows that the means for rotating comprises means for rotating a data cartridge about an axis that is parallel to the face of the data cartridge with the greatest area.

Claim 64, Coffin et al shows that the means for rotating comprises an electrical motor 68.

Claim 65, Coffin et al shows that the cartridge transport comprises: a grasper transport for horizontally displacing the grasper so that the grasper is able to insert/remove a data cartridge into/from magazine.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 10, 11, 15-25, 66, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffin et al '271 in view of Coffin et al '507 (US 2004/0258507).

Claim 2, Coffin et al'507 shows a cartridge transport, which includes a lead screw 156 (Fig. 6) and teaches that the conventional cartridge transport has high part-count, which increases assembly time, maintenance, and ultimately the cost of the media storage system ([0004]). One of ordinary skill in the art would have been motivated to apply Coffin et al'507 cartridge transport into Coffin et al's 271's device to solve the above mentioned problem.

Claim 10, in above constructed device, the cartridge transport comprises:

means for vertically moving at least a portion of the grasper towards and away from the site so that the grasper is capable of displacing a data cartridge within a substantially vertical plane Coffin et al '507's Fig. 6).

Claim 11, in above constructed device, the cartridge transport comprises: means for horizontally moving the grasper towards and away from the site so that the grasper is capable of displacing a data cartridge within a substantially vertical plane.

Claim 15, the above constructed device, is data cartridge library including:

a frame;

a shelf system, operatively attached to the frame, for supporting at least two cartridge magazines and including at least one shelf;

a drive that is operatively attached to the frame;

a magazine transport device, operatively attached to the frame, for moving a magazine comprised of a frame structure that defines a space for accommodating a plurality of data cartridges and an opening through which a data cartridge can be inserted/removed into/from the space, and a partitioning structure that divides the space into a plurality of substantially parallel slots with each slot capable of accommodating a data cartridge, and when such a magazine is associated with the library, the magazine is oriented such that a data cartridge held within one of the plurality of slots is

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oriented such that the face of the data cartridge with the greatest surface area lies in a substantially vertical plane; and

a cartridge transport device, operatively attached to the frame, for moving a data cartridge between a data cartridge magazine and the drive;

wherein the magazine transport device is capable of moving a magazine to a site at which at least one of the plurality of substantially parallel slots of the magazine are exposed to the cartridge transport;

wherein the cartridge transport comprises:

a grasper for grasping a data cartridge and releasing a previously grasped data cartridge; and means for linearly moving at least a portion of the grasper relative to the site so that the grasper is capable of displacing a data cartridge within a substantially vertical plane.

Claim 16, in above constructed device the means for linearly moving comprises means for vertically moving the grasper.

Claim 17, in above constructed device, the means for linearly moving comprises means for horizontally moving the grasper.

Claim 18, in above constructed device, the means for linearly moving comprises a lead screw.

Claim 19, in above constructed device, the means for linearly moving comprises a rack and pinion.

Claim 20, in above constructed device, the means for linearly moving comprises a pulley.

Claim 21, in above constructed device, the means for linearly moving comprises a rotary actuator.

Claim 22, in above constructed device, the means for linearly moving comprises a linear actuator.

Claim 23, in above constructed device, the cartridge transport comprises: a grasper transport, located adjacent to the site, for horizontally displacing the grasper so that the grasper is able to insert/remove a data cartridge into/from each of the at least two of the plurality of substantially parallel slot of a magazine positioned at the site.

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Claim 24, in above constructed device, the cartridge transport comprises: means for rotating the grasper about a horizontal axis.

Claim 25, in above constructed device, the cartridge transport comprises: means for rotating the grasper about a vertical axis.

Claim 66, in above constructed device, the cartridge transport comprises: means for vertically moving the grasper so that the grasper is capable of displacing a data cartridge within a substantially vertical plane.

Claim 67, in above constructed device, the cartridge transport comprises means for horizontally moving the grasper so that the grasper is capable of displacing a data cartridge within a substantially vertical plane.

Allowable Subject Matter

4. Claims 12-14, 26-28, and 68-70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- With regard to claims 12, 26, and 68; as the closest reference of record, Coffin et al (US 2002/0122271) (or with Coffin et al (US 2004/0258507) or further with Dimitri (US 5,818,723)) disclosed a data cartridge library as described above, **but fails to show** that the grasper further includes a housing capable of accommodating a first data cartridge with a first height or a second data cartridge with a second height that is greater than the first height, with the height of a data cartridge being the distance between the two substantially parallel faces of the data cartridge that have the greatest surface area.

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- Claim 13; as the closest reference of record, Coffin et al (US 2002/0122271) disclosed a data cartridge library as described above, **but fails to show** that the cartridge transport and the magazine transport device comprises an elevator.
- Claims 27 and 69; as the closest reference of record, Coffin et al (US 2002/0122271) and Coffin et al (US 2004/0258507) disclosed a data cartridge library as described above, **but fails to show** that the magazine transport device comprises an elevator.
- With regard to claims 14, 28, and 70; as the closest reference of record, Coffin et al (US 2002/0122271) (or with Coffin et al (US 2004/0258507)) disclosed a data cartridge library as described above, **but fails to show** that the means for reading a first label and a second label that are each potentially associated with a magazine when the magazine is associated with the library and that are each differently oriented to the other; wherein the first label is associated with a magazine and is located in a first plane; wherein the second label is associated with a data cartridge and located in a second plane that is different than the first plane.

Conclusion

5. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tianjie Chen/
Primary Examiner, Art Unit 2627